

What is claimed is:

1. A brushless D.C. motor comprising:  
a housing;  
a stator positioned within said housing; and  
at least one radial spring positioned between said housing and said  
5 stator to retain said stator within said housing.
2. The brushless D.C. motor of claim 1 wherein said radial spring  
is a tolerance band having a plurality of waves formed thereon.
3. The brushless D.C. motor of claim 2 wherein said tolerance  
band has a first and a second end.
4. The brushless D.C. motor of claim 2 wherein said tolerance  
band is made from steel.
5. The brushless D.C. motor of claim 2 wherein said housing  
includes a groove and said tolerance band is positioned within said groove.
6. The brushless D.C. motor of claim 5 wherein said housing is  
made from aluminum.
7. The brushless D.C. motor of claim 5 further comprising a  
damping material positioned in said groove.
8. The brushless D.C. motor of claim 7 wherein said damping  
material is a grease.
9. The brushless D.C. motor of claim 7 wherein said damping  
material is rubber.

10. A tolerance band to press fit a stator in a motor housing comprising:

a length of sheet material; and,  
a plurality of wave structures formed in said length of sheet material.

11. A tolerance band as claimed in claim 10 wherein said plurality of wave structures are identical to one another.

12. A tolerance band as claimed in claim 10 wherein at least one of said plurality of wave structures is distinct from a remainder of said wave structures.

13. A tolerance band as claimed in claim 10 wherein said plurality of wave structures are lenticular in shape.

14. A tolerance band as claimed in claim 10 wherein said tolerance band is annular.

15. A tolerance band as claimed in claim 10 wherein said tolerance band includes first and second ends spaced from one another.

16. A tolerance band for a brushless D.C. motor comprising:  
a body having a first and second end; and,  
a plurality of waves formed between said first and second ends.

17. The tolerance band of claim 16 wherein said plurality of waves are equally spaced between said first and second ends.

18. The tolerance band of claim 17 wherein said body is generally circularly shaped.

19. The tolerance band of claim 17 wherein said waves have a crest offset a predetermined distance from said body.

20. The tolerance band of claim 18 wherein said crest is generally curved in shape.
21. The tolerance band of claim 18 wherein said top portion is generally flat in shape.
22. The tolerance band of claim 18 wherein said tolerance band is made from steel.
23. The tolerance band of claim 18 wherein said tolerance band is made from an elastomeric material.